

# The Fleece Medical Society

WILLIAM L PROUDFIT

*From The Cleveland Clinic Foundation, Cleveland, Ohio, USA*

The early history of coronary disease is marked by two important meetings held in England within a period of 20 years. The first was on 21 July 1768 when William Heberden presented his classic description of angina pectoris to the College of Physicians in London. The second meeting was that of the Gloucestershire (Fleece) Medical Society on 30 July 1788 at the Fleece Inn, Rodborough. This modest gathering of five medical friends heard Caleb H Parry attribute angina pectoris to coronary artery disease. Both these contributions were published, four and 11 years after presentation, respectively, and both had profound effects on medical thought of the day.<sup>1 2</sup> Heberden's description was appreciated immediately and he is justly honoured for it, though he was not aware that the symptom was of cardiac origin. Parry's observation on angina and its cause generated discussion but his conclusions were not embraced widely; it was about 125 years before the medical profession accepted the association of angina pectoris and obstructive disease of the coronary arteries. Though the term "Heberden's syndrome" is appropriate, we might equally well speak of "Jenner-Parry's disease."

Why did Parry present a case of angina pectoris with postmortem findings along with a "disquisition on the Symptoms, Pathology, prevention and cure of that Disorder" to the first scientific meeting of such a small group? We do not know, but one can speculate that Parry thought it appropriate to address this tiny assembly because his friend, Edward Jenner, concluded more than two years earlier that angina was caused by coronary disease and communicated his conclusion to Parry.<sup>2</sup> Jenner was in the audience, as were at least two others who were convinced of the thesis, so Parry expected no opposition.<sup>3</sup>

The organisational meeting of the Gloucestershire Medical Society was held in May 1788, though there had been two previous meetings "for the purpose of conviviality."<sup>3 4</sup> Jenner played the flute and violin, wrote poetry, and composed ditties, and he may have been a performer at these meetings.<sup>5</sup> Perhaps other

members had artistic abilities as well. Jenner had been part of an earlier society which met at The Ship at Alveston, an inn that is still in operation. Despite his pleasant personality and talent for entertainment, Jenner annoyed his colleagues in that society by repeatedly speaking about the virtue of cowpox as a prophylaxis against smallpox. He was warned to cease his recitations on this subject or he would forfeit his membership.<sup>5</sup> Perhaps he decided to form a society of his own, for he must have been the moving force in organising the new medical group. The "Regulations and Transactions" adopted at the May meeting state that the society "be for the future extended to the more important end of improvement in the different branches of science connected with medicine and surgery." Meetings were to be held at one o'clock on Wednesdays, the first in June, the last in July, and the second in September. The resolutions provided that "original papers" be read and that these "be discussed with candour, yet with freedom." Dues were one guinea per year, with a fine of one guinea if the manuscript of a presented paper was not submitted later "on Folio Foolscap Paper with an inner blank margin of least an inch." Half a guinea was assessed each member not in his seat when the meeting was convened, and a one guinea fine was levied if the member "neglects entirely to attend." The meetings were to continue until four o'clock, and dinner costing three shillings and sixpence, "exclusive of liquors," would be served at 4:15 pm. Members were to pay for dinner whether or not they attended. A publications policy was established. The next to last (XIII) article of organisation stated that because "a principal part of the view of this society is the mutual communication of knowledge without fear, reserve, or any authority but that of Truth, no new members shall be admitted for these seven years to come, whose age exceeds 40 years." Jenner, the oldest of the group, was 39. No two physicians could be "from the same place" and new members could be elected only by unanimous consent. There is no evidence that any new members were elected. No visitors were to be admitted. The organisational records and the minutes of subsequent meetings have been preserved in the

library of the Royal College of Physicians since 1928; Sir William Osler realised their importance and purchased them from Dr Alfred Henry Carter of Birmingham, later bequeathing them to the Royal College.<sup>5</sup> The details of organisation, but not the complete minutes, were published in the *British Medical Journal* in 1896, accurate except for modernisation in the use of capital letters.<sup>4</sup> The members of the society were listed as John Heatherfield Hickes, MD, of Gloucester, Edward Jenner, surgeon of Berkeley, Thos Paytherus, surgeon of Ross, Danl Ludlow, Junior, surgeon of Sodbury, and Caleb Hillier Parry, MD, of Bath. Thomas Lewis referred to the Gloucestershire Medical Society and assigned priority of publication regarding the causation of angina pectoris by coronary disease to Parry, though he was aware that Jenner had made the original suggestion.<sup>6</sup>

Jenner is too well known to warrant a biographical background here. At this time, however, he was a surgeon in a small village, though he had trained and lived with John Hunter in London for two years. He was an outstanding naturalist, encouraged by Hunter's constant prodding.<sup>7</sup> Before the Gloucestershire Medical Society was formed, he had already realised the prophylactic value of cowpox (though he had not vaccinated with the virus yet), had associated angina pectoris with coronary artery disease, and had described the peculiar nesting habits of the cuckoo. He received universal acclaim during his lifetime for the first observation, but the latter two contributions were not appreciated fully until the twentieth century. Jenner attended Rev Dr Washbourn's grammar school at Cirencester with Hickes and Parry, though he was two and six years their senior, respectively.

Hickes was born at Pedington Manor, just outside Berkeley and studied medicine at the University of Edinburgh<sup>8</sup> where he received his MD degree in 1776.<sup>9</sup> Hickes practised in Gloucester and was for 14 years a physician to the Gloucester County Hospital, later moving to Bristol for several years before returning to Pedington.<sup>10</sup> He died in 1808 and is buried in the same church as Jenner.

Parry, like Jenner, was a son of a manse, his father having been a nonconformist minister in Cirencester.<sup>11</sup> He was the heir to family fortunes from both his parents. Parry too was educated at the University of Edinburgh, interrupting his course for two years which he spent residing with a physician in London, finally graduating in 1788. He practised in Bath all his career, distinguished both financially and professionally. He was the author of a number of perceptive books and other publications and co-authored two celebrated sons – one, Charles H, was a physician, and the other, William E, was the arctic explorer. Parry was a naturalist and a well recognised and

honoured agriculturalist. His book, *Syncope Anginosa*, is the most perceptive book ever written on coronary disease in the context of the date of publication, 1799.<sup>2</sup> The title is unfortunate; he might have had wider fame if it had been called "Angina pectoris." It is an extension of Parry's presentation of the subject at the first meeting of the Gloucestershire Medical Society. Parry, at 30 years of age, was John Hunter's physician when Hunter was in Bath for some months in 1785 because of angina.<sup>2</sup> Undoubtedly, Parry discussed Hunter's condition with Jenner and probably profited from his deductions and advice, though Jenner did not ascribe angina to coronary heart disease until the next year. Parry was disabled by right hemiparesis and aphasia in 1816 and died in 1822.<sup>11</sup> Jenner, who had a mild stroke in 1820, attended Parry's funeral and died of a second stroke less than a year after Parry.<sup>7</sup>

Daniel Ludlow, Junior, was a surgeon in Sodbury (now Chipping Sodbury) and was the son of Daniel, Senior, a surgeon to whom Jenner was apprenticed from the age of 13 until he was 20, when he went to live and study with John Hunter in London.<sup>7</sup> Daniel, Junior, was eight years younger than Jenner. He seems to have been the Ludlow to whom Hunter referred in several of his letters to Jenner, both of whom Hunter considered to be gifted naturalists.<sup>7</sup> He was probably the "Charles" Ludlow listed as one of Hunter's students, names frequently being inaccurate in lists in those days.<sup>12</sup> Ludlow passed the examination and joined the Company of Surgeons (later replaced by the Royal College of Surgeons) in 1783.<sup>13</sup> He first practised in Sodbury and later in Bath and Corsham. He died of tetanus in 1802, probably attended by his friend, Parry, who wrote on tetanus.<sup>14 15</sup>

Thomas Paytherus has an obscure origin. He was born between 1750 and 1753 probably and was a surgeon in Gloucester.<sup>13</sup> It is likely that he encountered Jenner there, because Jenner was an occasional visiting surgeon in that city and Jenner's friend, Hickes, practised there.<sup>7</sup> Paytherus was admitted to the Company of Surgeons in 1777 and moved to Ross-on-Wye in about 1784.<sup>13</sup> Jenner and Hickes attended a postmortem examination by Paytherus in Ross in 1786 on a patient who had angina pectoris.<sup>2 7</sup> By 1797 Paytherus had moved to London, where he practised until 1828, when he retired to Abergavenny in Wales.<sup>13</sup> He was carried on the rolls of the Royal College of Surgeons until 1840, but the date of his death is not known, though he was certainly the last surviving member of the Society.

In those days a surgeon was not required to have an academic degree. After an apprenticeship and many years of practice the MD degree could be conferred on surgeons by certain universities, if candidates were

proposed by two bona fide physicians. It was thus that Jenner and Ludlow were honoured by St Andrew's University in Scotland in 1792<sup>16</sup>; and Jenner received an honorary MD degree from Oxford many years later.<sup>7</sup> Hickes and Parry were the sponsoring physicians for both Jenner and Ludlow. The minutes of the little medical society refer to Doctor Jenner and Doctor Ludlow in 1792 and 1793.<sup>3</sup> There is evidence that the five medical men remained life-long friends.

The Gloucestershire Medical Society met at the Fleece Inn, Rodborough (now in Woodchester), just south of Stroud in Gloucestershire. The members seem to have referred informally to their group as the Fleece Medical Society. The location required a long horseback ride for all members, but especially for Parry and Paytherus (about 30 miles each); this probably accounts for the one o'clock convening time and scheduling of the meetings in seasons of mild weather. The Fleece Inn was built in 1783 as a posting house on the new Bath road.<sup>17</sup> It was a favourite meeting place for various groups, especially clothiers of Gloucestershire. The inn was closed in 1853 and is now a private residence, Hillgrove House (Fig.). It is commodious, measuring about 70 feet

wide and 35 feet deep in the main portion. Though it has been remodelled for residential purposes, it is evident that the ground floor rooms were large. In one of the front rooms a cast-iron fireback in the fireplace is dated 1658 and declares: "From a Smokey Life and a Scoulding Wife All men that doe me se take petie and deliver me." The Fleece Inn must have been a fine meeting place.

At the first scientific meeting of 30 July 1788, Caleb H Parry, president, was in the chair.<sup>3</sup> "Doctor Parry read part of an introductory address to the Society, on the Best Mode of Conducting Medical Enquiries." Unfortunately the notes were not preserved. He followed this with "a case and dissection of Angina Pectoris or Syncope Anginosa, together with a disquisition on the Symptoms, Pathology, prevention and cure of that Disorder." The paper is not attached to the minutes, but the case reported was that of Rev Mr S who died in March 1788 and who was mentioned in Parry's book published in 1799. In his book Parry included a solicited letter from Jenner indicating the background for his conclusion relative to the cause of angina, and explaining that he did not publish his observations because of concern for the feelings of John Hunter, who had angina pectoris. Though Jenner was not aware of it, Hunter very likely understood the nature of the problem, but did not choose to talk about it. Furthermore, Hunter had died in 1793, so Jenner had adequate time to prepare a paper of the subject. It is probable that after 1793 he was becoming more absorbed in his smallpox studies, and he did not wish to be diverted. Certainly Jenner must have discussed Parry's oral presentation, and Paytherus, who had done a postmortem examination more than two years previously on the body of a patient who had angina, must have been an interested listener and discussant. Paytherus, a surgeon, did a postmortem endarterectomy in this case. In his letter to Parry, Jenner said that the thickened intima was "separable as easily as the finger from a tight glove."<sup>2</sup> Dr Hickes attended Paytherus's necropsy with Jenner, so he too must have commented.

Jenner was not entirely derelict in reporting his conclusions about angina in writing. Because of his affection for John Hunter, he wrote a letter to Heberden, Hunter's personal physician in London, three weeks after his second postmortem observation of coronary disease in patients who had angina during life. Jenner clearly stated his findings and conclusions in the letter.<sup>7</sup> Baron said that the letter was not posted but Ottley claimed that it was.<sup>18</sup> There is also confusion about the time of composition of the undated letter. Baron gave the date as 1778. LeFanu speculated that the date was 1786, following Hunter's second visit to Bath for angina pectoris.<sup>5</sup> This suggestion must be correct. Jenner referred to the



Fig. The Fleece Inn today, now Hillgrove House, the property of Mr and Mrs T J Fudge, Woodchester, near Stroud, Gloucestershire.

visit of Hunter to Bath "last fall" and Parry in his book indicated that Hunter was his patient in Bath. Parry was still a medical student in 1777 when Hunter first visited Bath.<sup>9</sup> Jenner's letter to Heberden refers to the postmortem examination he did at Ross with Mr Paytherus at which Jenner had predicted "ossification" of the coronary arteries. Paytherus moved to Ross about 1784, so Jenner could not have written the letter before Hunter's second visit to Bath in 1785. In Parry's book Paytherus's verbatim report suggests that the necropsy was conducted some time in the latter part of March 1786, so Jenner's letter, composed three weeks later, must have been written in April 1786. Jenner remarked "... on the importance of the coronary arteries, and how much the heart must suffer from their not being able duly to perform their functions . . ." If Heberden received Jenner's letter, there is no evidence that it impressed him. Heberden was a renowned physician in London and Jenner was an obscure surgeon in a little village: his conclusion, based on limited evidence, might have been biased by an emotional attachment to Heberden's patient. Few of us would embrace with enthusiasm brilliant insights proposed by those whom we consider, even unjustifiably, our professional inferiors.

It is not known how many of the observations Parry published in his book were presented to the Fleece Medical Society. Parry described walking off angina and relief by the Valsalva manoeuvre. The first exercise tolerance test was done when Parry accompanied a patient who had angina during ascent of a hill and he checked the pulse during pain. He described decrease in the heart rate following carotid sinus pressure, though it is not clear that he tried the manoeuvre during attacks of angina. Parry noted a feeble pulse during anginal pain and postulated "... a greater or less diminution of the motion of the heart" during attacks, a fact only recently demonstrated. By syncope he meant weakness of the heart rather than unconsciousness. Parry rejected spasm of the ventricle as the cause of angina and pointed out that anginal pain may occur in paroxysmal tachycardia and in patients with valvular defects. His observations that "... death may at last ensue from a remedyless degree of irritability of the heart" seems to foretell another modern concept. Finally, he gave excellent advice for the treatment of angina, lacking only effective medication.

The third paper at the first scientific meeting was extraordinary but less profound, being a "History of a remarkable case of fecundity in the Human Species" by Dr Hickeys. A woman had 28 children born alive, including three sets of twins, and had three miscarriages, "all of these probably by the same man."

A second milestone in the history of cardiology was reached in the closing presentation by Jenner. He described mitral stenosis found at postmortem examination in the case of a woman who had been dyspnoeic – apparently the first description of the condition in the English language, and undoubtedly Jenner was not aware of any previous observation. Two historic firsts was a good score for the initial scientific meeting of the Fleece Medical Society. The pace was hard to maintain, and at the second meeting in September 1788, Paytherus and Parry were absent and "no business was transacted."

At the meeting of 29 July 1789 Jenner read a paper on "... a disease of the Heart following acute Rheumatism, illustrated by Dissections." He submitted a manuscript and in January 1805 he wrote to Parry requesting its return.<sup>19</sup> The death of a neighbour of acute rheumatic fever had reminded Jenner of his paper but unfortunately the text was lost. This was the first scientific presentation relating acute rheumatic fever to rheumatic heart disease – a third milestone reached in the Fleece Medical Society. Ludlow reported a confirmatory case to the Society a year later, together with postmortem examination. At the 9 September 1789 meeting, Paytherus "read a case and dissection of a patient who died of angina pectoris." This is probably the case of Mr Bellamy whose body he examined in the presence of Jenner and Hickeys in 1786.

The last paper of general interest was that of Parry "... on the effects of compression of the arteries in various diseases and particularly in those of the head; with hints towards a new mode of treating nervous disorders." This had been presented in 1788 in London, was repeated at the Fleece Medical Society meeting on 2 June 1790, and was published two years later.<sup>20</sup> Carotid compression temporarily relieved throbbing headaches ("What people in this country call opening and shutting") of the homolateral side of the head. It was also effective in cases of "too quick an action of the heart." This is probably the first description of the control of paroxysmal tachycardia by carotid sinus pressure, later mentioned in his book.

Other papers given before the Fleece Society were concerned principally with infectious disease or were single case reports. Jenner and Hickeys made formal presentations relating to smallpox and related conditions, and Jenner must have mentioned his intention to try cowpox inoculation. No record exists of informal discussions that must have taken place during the long meetings. Certainly five active practitioners had interesting cases to discuss and theories to propound. Parry's observations, unpublished during his lifetime, give a classic description of hyperthyroidism, his first case having been observed in

1786, almost 50 years before Graves's report.<sup>21</sup> It is tempting to believe that he mentioned this strange first patient to his fellow members and asked for their opinions.

Why were the meetings of the Fleece Medical Society terminated? There is no indication in the minutes. The treasury was full. Unless some of the minutes were lost, there was only one meeting each year in 1791, 1792, and 1793. No stimulating presentations were recorded in the minutes of the last four meetings. Had the well of information run dry? This possibility does not seem likely because Parry and Jenner were engaged in research and writing after 1793. John Hunter died 16 October 1793 and Jenner, Parry, Ludlow, and Hickes had been stimulated personally by that great medical scientist, but it seems that the Society was winding down before Hunter's sudden death from coronary disease. No striking changes seemed to have occurred in the personal lives of Parry or Jenner at least. Eight absences were recorded in the minutes of the last four meetings. Paytherus attended his last meeting in June 1790. He was fined for being late at that meeting, but this would hardly account for his subsequent absences. Though the records of the Company of Surgeons list Paytherus as being in Ross-on-Wye until 1796 and in London thereafter, it is known that such records are inaccurate and it is possible that he moved at an earlier date. Regardless, there were only four active members after June 1790. It seems that the "Regulations and Transactions" of the Fleece Medical Society were too restrictive as to membership for long survival. At the last meeting (5 June 1793) for which minutes have survived, "The Society ordered that all Papers which have been read in this Society shall be produced at the next meeting in July next." This may have been the death sentence. Attached to the minutes is a small collection of letters from non-members and summaries of a handful of papers presented – a paltry fraction.

What lasting benefits have we received from the Fleece Medical Society? Two brilliant exercises of inductive reasoning by Jenner are evident: the association of angina pectoris with coronary artery disease and the conclusion that rheumatic heart disease is the consequence of acute rheumatic fever. It is curious that Jenner contributed to the understanding of the most common serious epidemic disease (smallpox) of his day as well as to two of the most common serious chronic diseases of our time. Hunter's famous advice to Jenner, "... but why think? Why not try the experiment?" was excellent in the case of vaccination, but thinking enabled Jenner to solve the coronary disease and rheumatic heart disease problems. Jenner also described mitral stenosis for the first time in English, but this was a

relatively minor accomplishment in comparison with his others. Admiration for Jenner should not diminish our appreciation of Caleb Parry. He not only put Jenner's conclusion relative to angina before the general medical public but also extended Jenner's observations and added much sound clinical description and reasoning. He had a remarkably modern conception of the heart during anginal attacks and described the effects of carotid sinus pressure on the rate of the heart. Hickes, Ludlow, and Paytherus contributed reports helpful to Jenner and Parry. All members made additional contributions after the demise of the Fleece Medical Society except, perhaps, for Ludlow, who died at a relatively early age. How many medical societies do we have today all of whose members have made significant publicly presented observations?

In Parry's book, *Syncope Anginosa*, he pays a graceful tribute to his friends in the Society. He listed them in the following order: Dr Hickes, Dr Jenner, Dr Ludlow, and Mr Paytherus. "The last two are to me comparatively of late acquaintance of about twenty years; but they have been endeared to me by private and professional merits, and by habits of reciprocal obligations. Of the first two it is sufficient to say that they have been my friends for almost twice that period, acquired in the gay morning of my life, and faithfully preserved during various changes of place and fortune. My heart glows while I pay them the tribute of esteem, which is justly due to their worth and unabated affection." We should glow in the warmth provided by the Fleece Medical Society.

Appreciation is expressed to the following for help in assembling background material: D N Cole, librarian of the Royal College of Physicians of London, Dr J T H Hall of the University of Edinburgh, Dr Stephen Watson of St Andrew's University, Nancy McCall, assistant archivist of the Alan Mason Chesney Medical Archives of the Johns Hopkins Medical Institutions, and Dr Royston C Lewis of The Cleveland Clinic Foundation. Geoffrey Langley, county reference librarian of Avon, Kate Clarke, librarian of the Royal United Hospital of Bath, B P Jones, librarian of the Medical School of the University of Bristol, and E H Cornelius, librarian of the Royal College of Surgeons of London, have each made many contributions for which I am grateful.

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Requests for reprints to Dr William L Proudfit,  
Department of Cardiology, The Cleveland Clinic,  
9500 Euclid Avenue, Cleveland, Ohio 44106, USA.